

determining a [channel utilization] factor related to the rate at which packets are transmitted over said virtual connection towards said destination [customer-premises] equipment; and

transmitting said [channel utilization] factor to a data-rate management [means] processor [so as] to control the [send information] rate at which the packets are sent upstream from said multiplexing[;], wherein said [channel utilization] factor [taking into account] is based on the length of said queue and the time taken to transmit said factor to said data-rate management [means] processor [so as] to prevent said queue from overflowing.

2. (Amended) A method according to claim 1, wherein said [channel utilization] factor [is a piece of information guaranteeing that] satisfies the following relationship [is satisfied]:

$$\sum_i SIR_{i,t} \leq k_{TM} * TR$$

where $SIR_{i,t}$ is the rate at which the packets are sent into the network for a virtual connection [i] i at time [t] t, TR is the rate at which packets are transmitted over the virtual connection towards the destination [items of customer premises] equipment, and k_{TM} is equal to:

$$k_{TM} = 1 + \frac{FIFO_{OVER}}{(RTD + CMP) * \lambda * TR}$$

where $FIFO_{over}$ is the number of packets that can be stored in said queue, RTD is the time taken by a packet to make a round trip over said communications network, CMP is the time of measurement of the instantaneous data-rate over the virtual connection, and λ is a constant